

## ABSTRACT OF THE DISCLOSURE

[0077] New switching technology relies upon state information for providing a previously unavailable degree of quality of service. In particular, by providing the ability to give service guarantees to uniquely identifiable sets of packets ("micro-flows"), different qualities of service can be offered for each transmission. The QoS associated with each micro-flow is characterized by a set of descriptors. These descriptors are communicated to each switch by the first packet of the micro-flow associated with the descriptors.